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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,633	02/07/2002	Paul R. Prince	AMSCI.116A	3244

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EXAMINER

GANTT, ALAN T

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,633

Applicant(s)

PRINCE ET AL.

Examiner

Alan T. Gantt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/7/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 and 24 is/are allowed.
- 6) ☒ Claim(s) 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis.

Regarding claim 21, Davis discloses a communication interface device for transferring signals between a computer and telephone including wireless telephones. Davis meets the following limitations:

A wireless telephone coupler for connecting a modem to a wireless communication path via circuitry provided by wireless telephones for hands-free communications (paragraphs 0002 and 36 – hands-free since the headset connector is utilized), said coupler comprising:

an input plug for connection to said modem (Figures 5 & 8, refs. 180, 174, 176, 178); and

a circuit receiving the audio output signal of said modem, said circuit comprising:

(a) a receiving amplifier having an input coupled to said hands

free circuitry and an output coupled to said input plug (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset); and

(b) a transmit amplifier having an input coupled to said input plug and an output coupled to said hands-free circuitry (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset),

Davis does not disclose the use of the gains of the amplifiers for reducing echo sufficiently to not interfere with the transmission of audio signals to the wireless telephone.

However, the examiner takes Official Notice that it is well known to reduce echo in circuits by paying attention to the relative gains used in the transmit and receive amplifiers and that it would have been obvious to modify Davis to include means to effectively eliminate echo in order to provide for proper operation of the circuit.

Regarding claim 22, Davis discloses a communication interface device for transferring signals between a computer and telephone including wireless telephones via the hands-free circuitry of a wireless telephone. Davis meets the following limitations:

coupling the output of a transmit amplifier to the one conductor of said hands free circuit and the input of said transmit amplifier to the output of said modem (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset);

coupling the input of a receiving amplifier to another conductor of said hands free circuit (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset); and

Davis is not concerned with a testing method nor does Davis make use of the handset to verify that an audio model signal is present.

However, the examiner takes Official Notice that it is well known to utilize an audio transducer to verify that an audio modem signal is present at the output point of the wireless telephone coupler. Therefore, at the time of the applicant's invention it would have been obvious to modify Davis to verify proper operation of the wireless telephone coupler in order to verify proper operation of the coupler.

Regarding claim 23, Davis discloses a communication interface device for transferring signals between a computer and telephone including wireless telephones. Davis meets the following limitations:

A wireless telephone coupler for connecting a modem to a wireless communication path via a wireless telephone comprising:

receiving amplifier means coupled between said wireless telephone and the output of said modem (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset),

transmit amplifier means coupled between the output of said modem and said wireless telephone (Figure 8, infrared transceiver –connects to plug to cellular telephone which connects to the headset), and

means coupling the output of said transmit amplifier and the input of said receiver amplifier to the hands-free handset socket or adapter interface of said wireless telephone (Figure 7 and 8 and paragraph 0036).

Davis is silent regarding the transmit amplifier having a non-zero positive gain for audio signals from the modem and substantially zero gain for signals at the output of the receive amplifier.

However, the examiner takes Official Notice that it is well known that an amplifier designed for transmission will exhibit positive gain and the receive amplifier will at the same time exhibit zero gain. Therefore, at the time of the applicant's invention, it would have been obvious to modify Davis to not produce a positive gain from the receive amplifier when the transmit amplifier is producing positive gain so that echo will not become problematic for the coupler.

Allowable Subject Matter

Claims 1-20 and 24 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, a wireless telephone coupler used for connecting a modem to a wireless communication path via hands-free circuitry and having a signal inverter cable connection for connecting the socket of the voice circuit to a wireless telephone was neither found, suggested, nor made evident by the prior art.

Regarding claim 2, a wireless telephone coupler used for connecting a modem to a wireless communication path via hands-free circuitry and having a non-inverter cable connection

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for connecting the socket of the voice circuit to a wireless telephone was neither found, suggested, nor made evident by the prior art.

Regarding claims 3, and 20, a voice circuit or circuit having for receiving the audio output signal of the modem having the configuration of the claims and an output circuit substantially matching the nodal impedance was neither found, suggested, nor made evident by the prior art.

Regarding claim 24, a wireless telephone coupler having the connection configuration of the claim and having a conversion circuit with the characteristics regarding the receive and transmit circuit was neither found, suggested, nor made evident by the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Satterlund et al. discloses four wire modem signal switching for voice and data applications.

Any inquiry concerning this communication from the examiner should be addressed to Alan Gantt at telephone number (703) 305-0077. The examiner can normally be reached between 9:30 AM and 6 PM within the Eastern Time Zone. The group FAX number is (703) 872-9306.

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Any inquiry of a general nature or relating to this application should be directed to the group receptionist at telephone number (703) 305-4700.

Alan T. Gantt

Alan T. Gantt

July 25, 2004

A handwritten signature in black ink, appearing to read "Nick Corsaro", with a long horizontal flourish extending to the right.

NICK CORSARO
PATENT EXAMINER